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Traversing Head Vertical Plate Saw

- Model Number : [SV-86110](#)
- Design Style : [Servo Motor Drive Saw Frame](#)

Specifications

Maximum Cutting Capacity	Height	860 mm (34")
	Throat	1100 mm (43")
	Length	2000-7000 mm (79"-276") per customer's request
Saw Blade	Size	7440 x 67 x 1.6mm (293" x 2.6" x 0.06")
	Speed	12-80m/min (39-262fpm)
Motor Output	Blade	15 hp
	Hydraulic	3 hp / 2 hp
	Feed	1.3 KW
	Coolant	1/2 hp
Hydraulic	Tank	60 / 60 L (13/13 gal)
	Pressure	55 / 35 kg/cm ² (785/500 psi)
	Output Flow	30 / 12 L/min (6.6/2.6 gal/min)

Machine Features

MACHINE FEATURES

The worktable is extra heavy duty to handle all sizes of plates regardless of weight. Its design facilitates loading and unloading by overhead crane or forklift with equal ease.

The Saw Arm's extra wide frame gives a solid, vibration free support to the blade. The saw arm has an integral, self-contained hydraulic system that travels with the column. This design eliminates hydraulic hoses and connections traveling the length and being subject to inevitable leakage, wear and exposure to damage from material chips. **The Saw Arm** moves via three precision ground, steel wheels that ride on two hardened, heavy-duty double rails that run the length of the saw table. On the inner rail the two driving wheels and 6 guide rollers offer a smooth and stable feeding force, and on the outer rail the third wheel provides rigid support for the saw arm. This design gives the saw frame a rigid base to ensure the smoothest feeding movement.

Saw frame travel is done by using an AC servo motor coupled with planetary speed reducer. This system with high torque and low speed capability provides smooth, pulse free feeding speed from 2 mpm to 2000 mpm for rapid travel.

Cutting Pressure is controlled by a highly accurate servo-motor thru a power efficient **Planetary Reducer**. Cosen's special automatic torque adjustment feature of the servo motor insures a steady feed rate. The final drive is thru double-link, high strength chain that drives the inboard hardened steel drive wheels. Thus, thru NC controls, the feed and cutting rates are precisely controlled for any type of material. This system with the high torque and low speed capability

provides smooth, pulse free, feeding speed from .078 inch/min to 78 inch/min for rapid travel.

The Blade Drive System for the saw blade comes from a 15 hp motor through a power effective high precision Planetary Reducer. Meanwhile, blade speed is controlled by a highly efficient Telemecanique/SquareD inverter. These specially built mechanisms combine to offer an extensive speed range, which is easily adjustable on the control panel.

Inverter-Controlled Blade Speed uses inverter to control the 15 hp blade motor so that the blade speed can be adjusted from 39 to 262 fmp steplessly to match the required cutting speeds.

Blade Deviation Detector will detect any blade deviation to insure straight cuts. The device can be pre-set to a deviation value. If the value is exceeded the machine will stop.

The Computer Controlled Feed System will calculate the ideal feed pressure, feed rate, and cutting times by material type and height. To increase blade life, the **SV-86110's** computer incorporates **Slow Entry and Exit Modes (SEEM)** as a standard feature.

NC Feed System with LCD Screen: After entering the data of material type and size, the built in CPU will calculate and display the traveling speed, cutting rate, and cutting time. To increase blade life, the **SV-86110's** computer incorporates **Slow Entry and Exit Modes (SEEM)** as a standard feature. Following is a list of features for the computer controlled system:

Automatic display of the feed rate (in/min), cutting rate (sq.in./min), blade speed (fpm), and cutting time

Detects the rotation of the main motor to secure the safe operation

Work length setting. When desired cut length is reached, machine will automatically shut off.

In case the error occurred, the error message and the reference failure position will show up.

The record of the operation time and the blade life (time and cutting area) is saved in memory.

Powered Guide Arm is hydraulically controlled from the operator's station, allowing the operator to move the carbide guides as close to the material as possible regardless of the material height.

The Powered Chip Removal System is conveniently located under the full length of the worktable with multiple, hydraulically powered "scrapers" to pull the chips at adjustable rates to the end of the work table, not out in front of the machine table as some competitors do, so as to not interfere with the loading of the saw and keeps the aisle open to traffic. There the chips are slowly drawn up an incline to drain the coolant back into the reservoir, prior to being deposited in the customer's chip barrel for easy removal. The incline allows the use of a standard 55-gallon barrel.

Tungsten Carbide Blade Guides are hydraulically clamped automatically to insure proper guide clearance to promote long blade life. Blade guides are used to guide the blade from both sides, and the bearings further support the back of the blade. In addition to the ease of operating via the control panel, this design also enables better cutting accuracy and stability.

Blade Tensioning is accomplished with an independent hydraulic system. During machine operation, the blade tension is constantly monitored and maintained to proper tension. When the machine is in the "OFF" position, the tension will be relaxed slightly to prolong blade life.

Laser Alignment Beam Light is very useful in insuring cutting accuracy on long material cutting. The laser beam shines on the material allowing the operator to align the material to the cut width desired.

The Keep On/Last Cut function allows setting to automatically stop the machine and shut down the hydraulic system at the end of the last cut.

 **Floor plan**

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